DAKHNOV, V.N.; KOBRANOVA, V.N.; PECHERNIKOV, V.F.; BENDEL'SHTEYN; B.Yu.;
KHOLIN, A.I.; POZIN, L.Z.; D'YAKONOV, D.I.; LATYSHEVA, M.G.;
DOBRYNIN, V.M.; LARIONOV, V.V.; NEYMAN, Ye.A.; LEBEDEV, A.P.

Terminology and symbols used in applied geophysics. Prikl. geofiz. no.27:223-235 '60. (MIRA 13:12)
(Prospecting--Geophysical methods)

PECHERNIKOVA, I. A.

[illegible]
.R930[illegible]

DETSKII TRUD V SEM'YE KAK SREDSTVO KOMMUNISTICHESKOGO VOSPITANIYA. MOSKVA, IZD-VO ZNANIYE, 1952. 29, (2) p. (VSESOYUZNOYE OBSHCHESTVO PO RASPROSTRANENIYU POLITICHESKIKH I NAUCHNYKH ZNANIY. 1952, SERIYA 3, NO. 21) "LITERATURA": p. (31)

PECHERNIKOVA, I A Err
.x92943

SHOKOLA I SEM'YA. MOSKVA, IZD-VO ZNANIE, 1952.

39, (1) P. (VSESOYUZNOYE OBSHCHESTVO PO RASPROBTRANENIYU POLITCHESKIKH I NAUCHNYKH ZNANIY. 1952, SERIYA I, NO 72)

LITERATURA: P. (40)

RUSSIA

PECHERNIKOVA, T.P.

Some clinical and laboratory correlations in litigous paranoid states in psychopaths. Sud.-med. ekspert. 8 no.2:33-37 Ap-Je '65. (MIRA 18:8)

1. TSentral'nyy nauchno-issledovatel'skiy institut sudebnoy psikhiatrii imeni Serbskogo (dir.- dotsent G.V. Morozov), Moskva.

PECHERNIKOVA, T.P.

Catamnestic study on psychopathies with manifestations of pathological barratry. Probl. obshchei i sud. psikh. no.14: 117-127 '63. (MIRA 18:9)

PECHERNIKOVA, T.P.

Pathological litigiousness in psychopatic personalities.
Zhur. nevr. i psikh. 63 no.2:244-250 '63 (MIRA 16:11)

1.1. TSentral'nyy nauchno-issledovatel'skiy institut sudebnoy psikhiatrii imeni Serbskogo (dir.-dotsent G.V. Morozov), Moskva.

*

PECHERNIKOVA, T.P.

Hysterical manifestations in late periods following closed head injuries in legal psychiatric practice. Probl.sud.psikh. 8:261-276 '59. (MIRA 13:6)
(Hysteria) (Head--Wounds and injuries)

PECHERNIKOVA, T.P.

Litigiousness of psychopaths which does not preclude responsibility. Trudy Gos.nauch.-issl.inst.psikh. 27:284-291 '61. (MIRA 15:10)

1. TSentral'nyy nauchno-issledovatel'skiy institut sudebnoy psikhiatrii imeni V.P.Serbskogo. Dir. - dotsent G.V.Morozov. Pyatoye otdeleniye. Nauchnyy rukovoditel' - prof. A.G.Galach'yan.
(PSYCHOLOGY, PATHOLOGICAL) (FORENSIC PSYCHIATRY)

PECHERNIKOVA, T.P.

Difficulties in diagnosing pathological waking states. Prak. sudebnopsikh.ekspert. no.7:50-57 '62. (MIRA 16:2)
(FORENSIC PSYCHIATRY) (SLEEP)

PECHERNIKOVA, T.P.

Serious crimes committed during the postnatal period. Prak.sudebno-psikh.ekspert. no.4:43-49 '61. (MIRA 16:2)

(FORENSIC PSYCHIATRY)

PECHERNIKOVA, T.P.

Development of quibbling in the personality of patients with late consequences of closed trauma of the skull. Probl.sud. psikh. 8:589-602 '59. (MIRA 13:6)
(Personality, Disorders of) (Skull--Wounds and injuries)

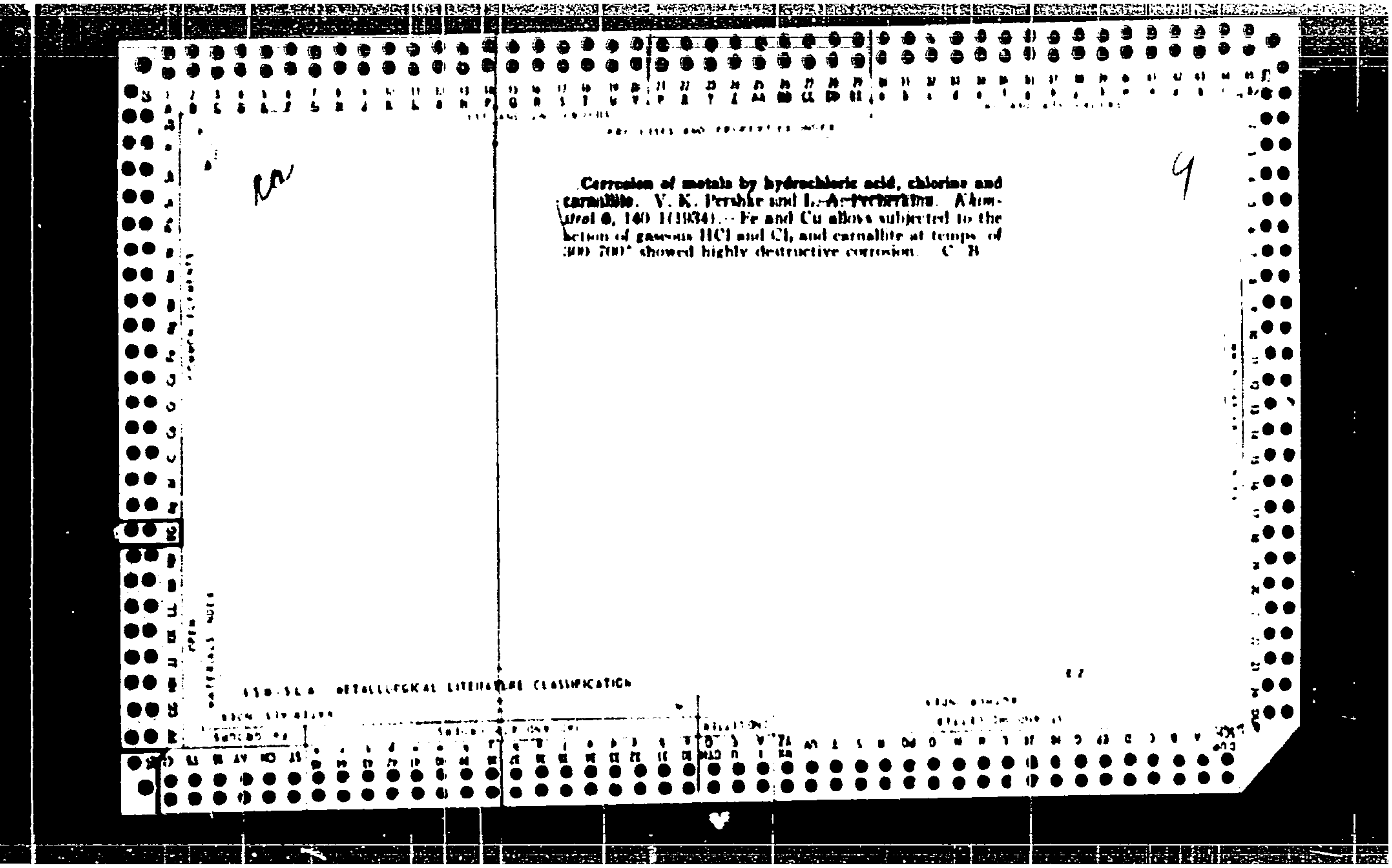
PECHERNIKAVA, I.A.

[redacted]

Training in work habits in the Kuz'min family. Rab.i sial.32 no.1:19-20 Ja '56. (MLRA 9:4)
(Children--Management)

SILENKA, V.

For parents about inculcating work habits ("Training school children in work habits at home", I.A.Pechernikova. Reviewed by V.Silenka).
Rab. i sial.32 no.1:18 Ja [redacted] (MIRA 9:4)
(Children--Management)



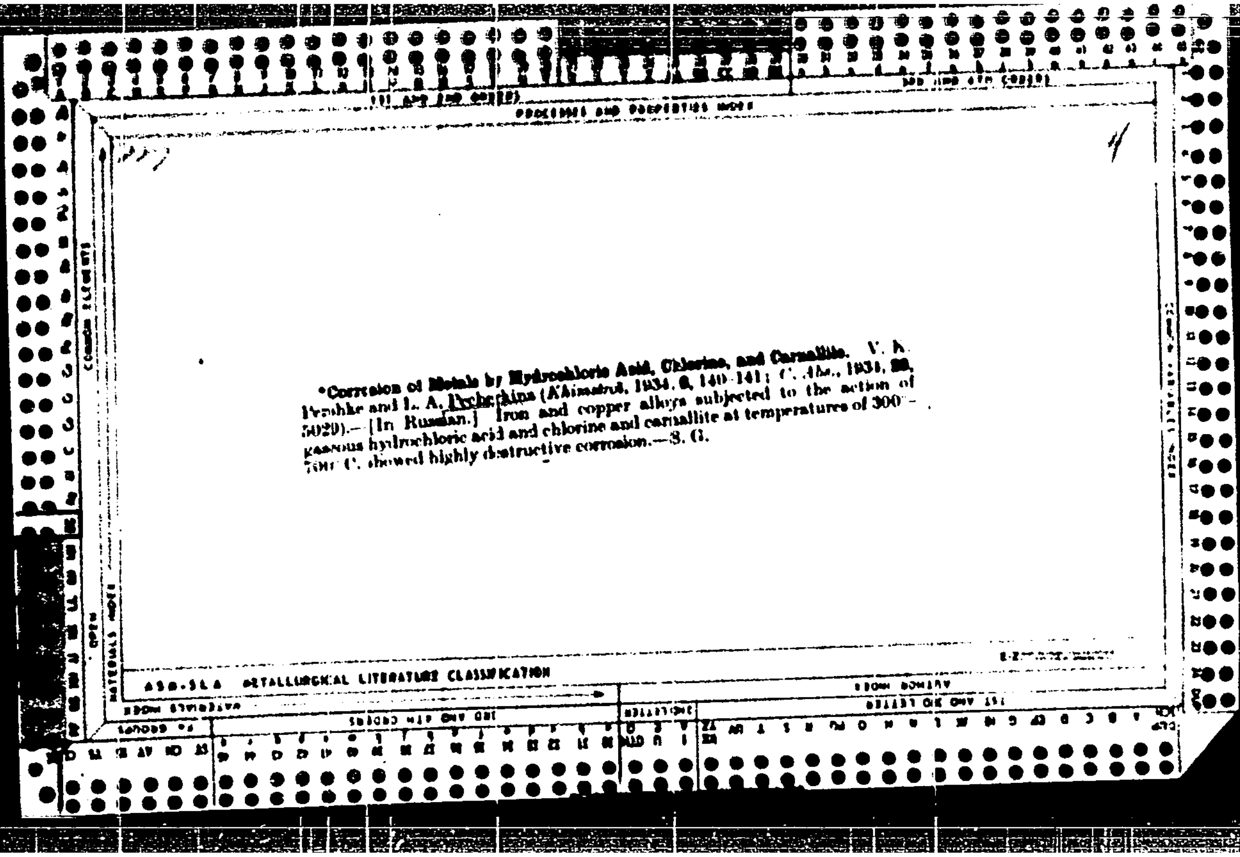
PROCESSES AND PROPERTIES INDEX

M

9

Corrosion of metals by hydrochloric acid, chlorine and carnallite. V. K. Pershke and L. ~~A. Pecherkina~~. *Khim.-Stroi* 6, 140-1(1934).—Fe and Cu alloys subjected to the action of gaseous HCl and Cl_2 and carnallite at temps. of 300-700° showed highly destructive corrosion. C. B.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



PROCESSES AND PROPERTIES INDEX
COMMON ELEMENTS
MATERIALS INDEX

4

*Corrosion of Metals by Hydrochloric Acid, Chlorine, and Carnallite. V. K. Pershke and L. A. Pechorkina (Khimstroi, 1934, 6, 140-141; C. Abs., 1934, 28, 5020).—[In Russian.] Iron and copper alloys subjected to the action of gaseous hydrochloric acid and chlorine and carnallite at temperatures of 300°-700° C. showed highly destructive corrosion.—S. G.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

Ca

Effect of neutral salts on the speed of hydrolysis of ethyl acetate in the presence of strong acids and the theory of Brönsted. N. V. Saposhnikova and Z. A. Pecherkina. *J. Phys. Chem.* (U. S. S. R.) 5, 116-25(1934).—The effects of NaCl, KCl, $MgCl_2$ and NaCl + KCl in 0.1 *N* HCl and of Na_2SO_4, $MgSO_4$, K_2SO_4, KCl + K_2SO_4 and NaCl + Na_2SO_4 in 0.1-0.5 *M* H_2SO_4 were studied. The rise of reaction velocity continues for each addn. of chloride. With sulfates in acid soln. there is a decreasing velocity with each addn. of sulfate but after a concn. of salt of about 1 *M* is reached, further addn. is almost without effect. Conclusions: The change of rate of hydrolysis does not coincide with that of the activity of EtOAc in the presence of sulfates. The change of rate of hydrolysis with increasing H_2SO_4 concn. is analogous to the fall of activity of the acid with concn., but the agreement is poorer than with the addn. of sulfates. Salts such as KCl, NaCl and $MgCl_2$ do not give a lowering of the speed with a min. in small concns., whence it follows that a law cannot be derived for the change of speed with change of activity of the acid or for the same change of activity of the ester. Qualitatively it is known but quantitatively it has not been measured that in the case of sapon. of esters by alkalies, sulfates exert a pos. effect while chlorides slow down the reaction. These results are similar to those for the effect of the same ions on cane-sugar hydrolysis. Eight tables and ten graphs summarise the data for concns. of acid varying from 0 to 4 *N* and of salts from 0 to 5 *N*.

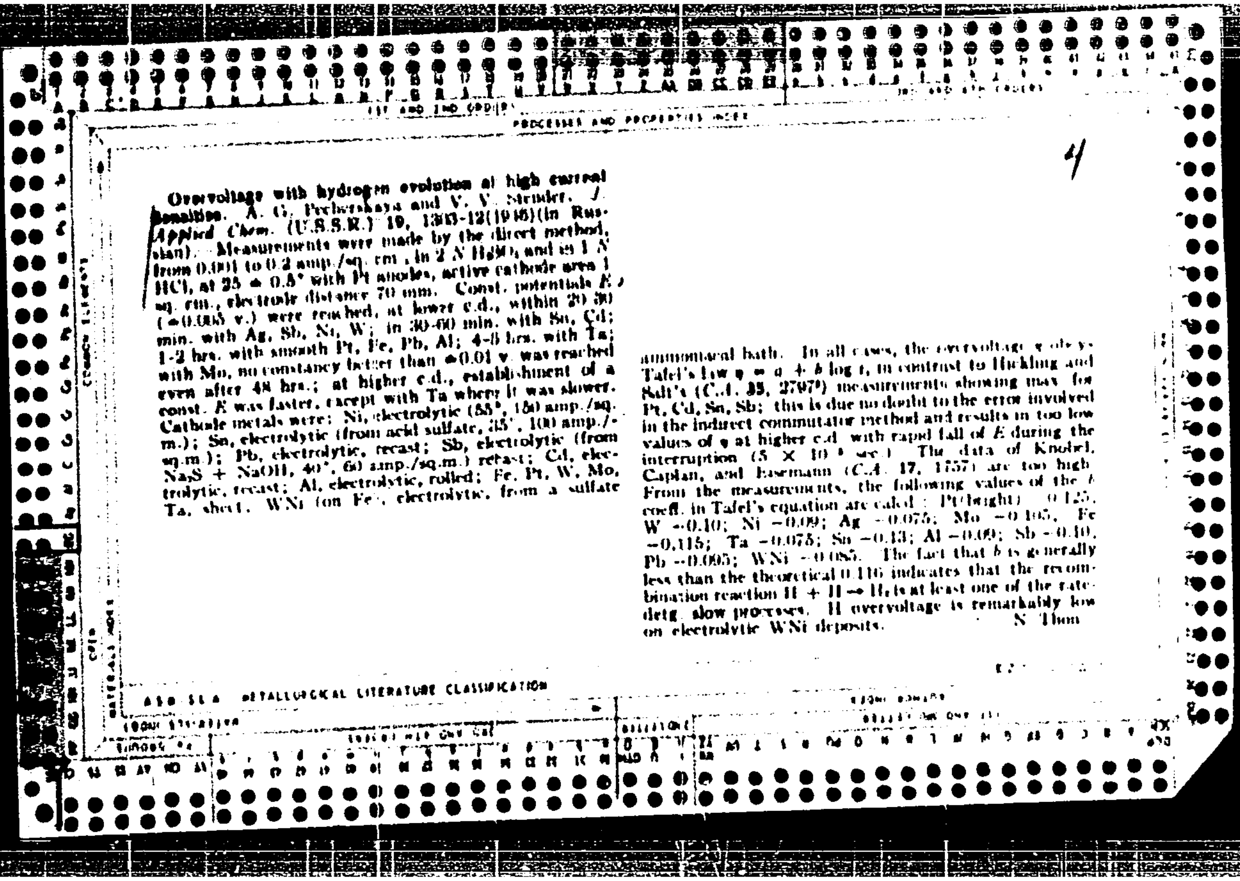
F. H. Rathmann

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

PECHERNIKOVA, T. P.

"Hysterical Phenomenon in the Remote Period After a Closed Trauma of the Head in Forensic Psychiatric Practice." Cand Med Sci, Central Inst for the Advanced Training of Physicians, Min Health USSR, Moscow 1955. (KL, No 9, Feb 55)

SO: Sum. No 631, 26 Aug 55 - Survey of Scientific and Technical Dissertation Defended at USSR Higher Educational Institutions. (14)


PROCESSES AND PROPERTIES INDEX
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

4

Overvoltage with hydrogen evolution at high current densities. A. G. Pecherskaya and V. V. Stender. *J. Applied Chem.* (U.S.S.R.) 19, 1303-12(1946)(in Russian).—Measurements were made by the direct method, from 0.001 to 0.2 amp./sq. cm., in 2 *N* H_2SO_4 and in 1 *N* HCl, at 25 ± 0.5° with Pt anodes, active cathode area 1 sq. cm., electrode distance 70 mm. Const. potentials *E* (±0.005 v.) were reached, at lower c.d., within 20-30 min. with Ag, Sb, Ni, W; in 30-60 min. with Sn, Cd; 1-2 hrs. with smooth Pt, Fe, Pb, Al; 4-6 hrs. with Ta; with Mo, no constancy better than ±0.01 v. was reached even after 48 hrs.; at higher c.d., establishment of a const. *E* was faster, except with Ta where it was slower. Cathode metals were: Ni, electrolytic (55°, 150 amp./sq. m.); Sn, electrolytic (from acid sulfate, 35°, 100 amp./sq. m.); Pb, electrolytic, recast; Sb, electrolytic (from Na_2S + NaOH, 40°, 60 amp./sq.m.) recast; Cd, electrolytic, recast; Al, electrolytic, rolled; Fe, Pt, W, Mo, Ta, sheet. WNi (on Fe), electrolytic, from a sulfate ammoniacal bath. In all cases, the overvoltage η obeys Tafel's law $\eta = a + b \log i$, in contrast to Hickling and Salt's (*C.A.* 35, 2797) measurements showing max. for Pt, Cd, Sn, Sb; this is due no doubt to the error involved in the indirect commutator method and results in too low values of η at higher c.d. with rapid fall of *E* during the interruption (5×10^{-5} sec.). The data of Knobel, Caplan, and Eiseman (*C.A.* 17, 1757) are too high. From the measurements, the following values of the *b* coeff. in Tafel's equation are calcd.: Pt(bright) 0.125, W —0.10; Ni —0.09; Ag —0.075; Mo —0.105, Fe —0.115; Ta —0.075; Sn —0.13; Al —0.09; Sb —0.10, Pb —0.095; WNi —0.085. The fact that *b* is generally less than the theoretical 0.116 indicates that the recombination reaction H + H → H_2 is at least one of the rate-detg. slow processes. H overvoltage is remarkably low on electrolytic WNi deposits. N. Thon

PECHERSKAYA, A.G.; PONOMAREV, V.D.

Catalytic oxidation of sulfuric anhydride by magnesium salt
solutions: c) Effect of copper ions on the catalytic oxidation
of sulfur dioxide by manganese ions. Izv.AN Kazakh.SSR Ser.khim.
no.1:60-61 '47. (MIRA 9:8)
(Oxidation) (Sulfur dioxide) (Copper)

PECHERSKAYA, A.G.; STENDER, V.V.; YASHKINA, O.P.

Electrolytic extraction of copper from solutions after lixiviation.
Izv.AN Kazakh.SSR Ser.khim. no.1:62-63 '47. (MLRA 9:8)
(Copper--Electrometallurgy)

PECHERSKAYA, A. G.; STENDER, V. V.

Chlorine

Lowering of the cathode potential in electrolytic production of chlorine. Zhur. prikl. khim. 20, No. 1, 1947.

9. Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

PECHERSKAYA, A.G.; STENDER, V.V.

Cathode potentials in the preparation of hydrogen. Izv.AN Kazakh.SSR
Ser.khim.no.2:23-31 '48. (MIRA 9:7)
(Hydrogen) (Electroplating)

PECHERSKAYA, A.G.; DURNOVO, I.G.; STENDER, V.V.

Potentials of lead and lead-silver anodes during electrolysis of aqueous solut9ons of zinc sulfate. Izv.AN Kazakh.SSR Ser.khim. no.3: 55-61 '49. (MLRA 9:8)

(Electrodes, Lead) (Zinc sulfate)

PECHERSKAYA, A. G.

1

②

Effect of Impurities in the Electrolytic Production of Zinc from Sulphate Solutions. A. G. Pecherskaya and V. V. Stender (*Zhur. Priklad. Khim.*, 1950, 23, (9), [illegible]-915).—[In Russian]. P. and S. studied the electrodeposition of Zn from a "standard" bath contg. Zn (as $ZnSO_4$) 60 and free H_2SO_4 100 g./l., all measurements being made at 25° C. Other metal ions were introduced by adding the corresponding sulphates. Addn. of Al, Na, Mg, and other alkali and alkaline-earth metals lowered the elect. conductivity of the soln. and hampered the diffusion of Zn ions to the cathode. Mn was harmful for the cathode processes, since highly oxidized Mn compounds formed at the anode depolarize the evolution of H and reduce the yield of Zn. Thus Mn addn. of 1, 3, 6, 9, 12, 15 g./l. reduced the current efficiency η from 91·09 to 90·55, 89·80, 87·50, 85·10, 83·39, and 83·21%, resp. The effects of impurities more electropositive than Zn were determined by measuring the cathode potential (φ) and η at various c.d., and by studying the working of a model short-circuited cell in which the electrodes were of Zn and the addn. metal. Ni, Co, Cu, Sb, and Ge ions had an injurious effect, owing to their forming short-circuited local cells on the Zn. The intensity of action of these local cells depends on the magnitude of the H overvoltage on the addn. metal and on the uniformity of distribution of the impurity on the surface of the Zn cathode. An increase in cathodic c.d. lowers the activity of these local cells and brings about an increase in η. On adding substances such as Hg or gelatin, φ for H evolution and η are both increased, even in the presence of considerable amounts of electropositive metals.—G. V. E. T.

Metallurgical Abst.
Vol. 21 May 1954
Electrometallurgy and Electrochemistry

AF
9-4-54

C.A.

4

Potentials of the evolution of hydrogen in acid solutions. A. G. Pechorskaya and V. V. Stender (Kazakhskii Mining-Met. Inst., Alma-Ata). *Zhur. Fiz. Khim.* 24, 860-9 (1950). The potentials of the evolution of H from a 2 N soln. of H_2SO_4 at 25° at c. ds. of 10-2000 amp./sq. m. for the metals Pb, Zn, Sb, Al, Sn, Cd, Cu, Fe, Ge, Bi, Mo, Ag, Co, Ni, W, and Re were detd. Paul W. Howerton

4

CA

Catalytic properties of electrode surfaces. A. G. Pecherskaya and V. V. Stender (Acad. Sci. Kazakh S.S.R.). Doklady Akad. Nauk S.S.S.R. 75, 811-13(1950). Fe cathode potentials for evolution of H_2 in solns. of NaOH 100 + NaCl 100 g./l., at 70°, at 650 amp./sq. m., were shifted by 0.2-0.4 v. to more pos. values by coating with W-Ni. As the coating did not change the surface area of the cathode, the effect is attributed to its greater catalytic action as compared with Fe. Typical catalyst poisons, such as Hg salts or surface-active substances, counteract the lowering of the potential, more so on W-Ni than on Fe. The effect is not observable under industrial conditions owing to the presence of catalyst-poisoning impurities in the bath or in the anodes.
N. Thon

1951

Pecherskaya, A. G.

Activation of cathodic surfaces during the simultaneous discharge of hydrogen and zinc ions. A. G. Pecherskaya. J. Appl. Chem. U.S.S.R. 27, 1053-7 [illegible] translation).—See C.A. 46, 8112e. B. M. K.

PECHERSKAYA, A. G.

4

USSR

Activation of cathode surfaces during simultaneous discharge of hydrogen and zinc ions. A. G. Pecherskaya (with V. G. Novoselova). (Zhur. Priklad. Khim., 1954, 27, 1321–1324).—The critical c.d. at which deposition of Zn from $ZnSO_4$–H_2SO_4 electrolyte on polished metal cathodes takes place rises in the order Cd < Al < Cu ≤ Ni < Co < Fe. It rises with temp., from 25 to 75°, with H_2SO_4 concn., from 100 to 500 g. per l., and with $ZnSO_4$ concn., from 30 to 60 g. Zn per l., falling with higher $ZnSO_4$ concn.

R. Truscoe.

Mining Inst., Kemerovo

PECHERSKAYA, A.G., kand. khim. nauk; GEDZ', N.M., inzh.

Treatment of lean manganese ores and pulps with the help of spent pickling solutions. Gor. zhur. no.6:64-65 Je '65. (MIRA 18:

1. Dnepropetrovskiy inzhenerno-stroitel'nyy institut (for Pecherskaya).
2. Nauchno-issledovatel'skiy i proyektnyy institut po obogashcheniyu i aglomeratsii rud chernykh metallov, Krivoy Rog (for Gedz').

BARENBOYM, A.B., inzh.; PECHERSKAYA, I.M., inzh.

Some results of the cavitation testing of pumps with refrigerants. Khol. tekh. i tekh. no.1:104-110 '65. (MIRA 18:9)

PECHERSKIY, A.V.; POGONYA-STEFANOVICH, Yu.F.

Conditions governing the formation and shape of Lower Paleozoic granitoid intrusions in the eastern slope of the Kuznetsk Alatau. Mat. po geol. i pol.iskop.Kras.kraia no.3:97-109 '62. (MIRA 17:2)

PECHERSKAYA, B.G.

Case of Barre-Masson disease. Khirurgiia 37 no.5:121 My '61.
(MIRA 14:5)

1. Iz khirurgicheskogo otdleniya (zav. G.S. Kemter) 2-y Gorodskoy bol'nitsy Kaliningrada.
(BLOOD VESSELS—TUMORS)

PECHERSKAYA, K. A.

"From the Domain of Organo-Metallic Compounds of Mercury: III. Reaction of the Grignard Reagent with w-halogenmercuriacethophenone," Is. Ak. Nauk SSSR, Otdel. Khim. Nauk, No.1, 1941

PECHERSKAIA, K. A.

A. N. Nesmeianov, K. A. Pecherskaia and G. Ya. Uretskaia, Potassium fluoride as analyzer of alkali in reactions of organic combinations. Reactions of decarboxylating and decarbonizing. P. 240.

SO: Bulletin of the U.S.S.R. Academy of Sciences(Chemistry Series)
Izvestia Akad. Nauk, S.S.S.R., No. 2, 1948.

CH

Introduction of the trichloromethyl group into an aromatic nucleus by decarboxylation of trichloroacetic acid in the presence of aromatic hydrocarbons. A. N. Nesmeyanov, K. A. Pecherskaya, and G. Ya. Uretskaya (Inst. Org. Chem., Moscow). *Izvest. Akad. Nauk S.S.S.R., Otdel Khim. Nauk* 1949, 607-10.—The liberation of the CCl_3 anion during the decarboxylation of Cl_3CCO_2H (I) (cf. *C.A.* 42, 4021c) permits its utilization for trichloromethylation of aromatic hydrocarbons. Presence of the CCl_3 group is shown by its hydrolysis to CO_2H. Heating 10 g. I, 12 g. $C_{10}H_8$, and 2 drops pyridine 1 hr. to 155-75°, followed by treating with hot 2 *N* NaOH for 0.5 hr. gave 4% 1-$C_{10}H_7CO_2H$, m. 159-9.5°. Addn. of a few drops of pyridine to a molten mixt. of 25 g. I, 30 g. $C_{10}H_8$, and 2 g. dry $CuCl_2$ and heating 1 hr. at 155-70° gave 23% 1-$C_{10}H_7CO_2H$ and 4 g. of a mixt. of $CHCl_3$ with Cl_3CCOCl (identified as the anilide, m. 94°); when Cu trichloroacetate was used as catalyst the yield of $C_{10}H_7CO_2H$ rose to 35%. Similarly 10 g. I, 15 g. fluorene, 0.8 g. $CuCl_2$, and a little pyridine at 150-65° gave 14% *fluorenecarboxylic acid*, m. 245°. Anthracene (10 g.), 25 ml. $PhNO_2$ (without solvent much decompn. occurs), 10 g. I, and a little pyridine similarly gave 6% *9-anthracenecarboxylic acid*, m. 206-7° (decompn.). Phenanthrene similarly gave (a solvent is unnecessary) 9% mixed *isomeric phenanthrenecarboxylic acids*, m. 181-91°. Tech. xylene gave an unstated amt. of *isomeric* $Me_2C_6H_3CO_2H$, m. 85-105°.

G. M. Kosolapoff

NESMEYANOV, A.N.: PECHERSKAYA, K.A.: TOLSTAYA, T.P.

Chemical Structure

Effect of structural factors on conjugation phenomena. Part 4. Reactivity of the CH-bond of barious ketones. Uch. zap. Mosk. un., No. 1, 1950.

9. Monthly List of Russian Accessions, Library of Congress, October 195~~3~~2, Uncl.

PECHERSKAYA, K.A.

[redacted]

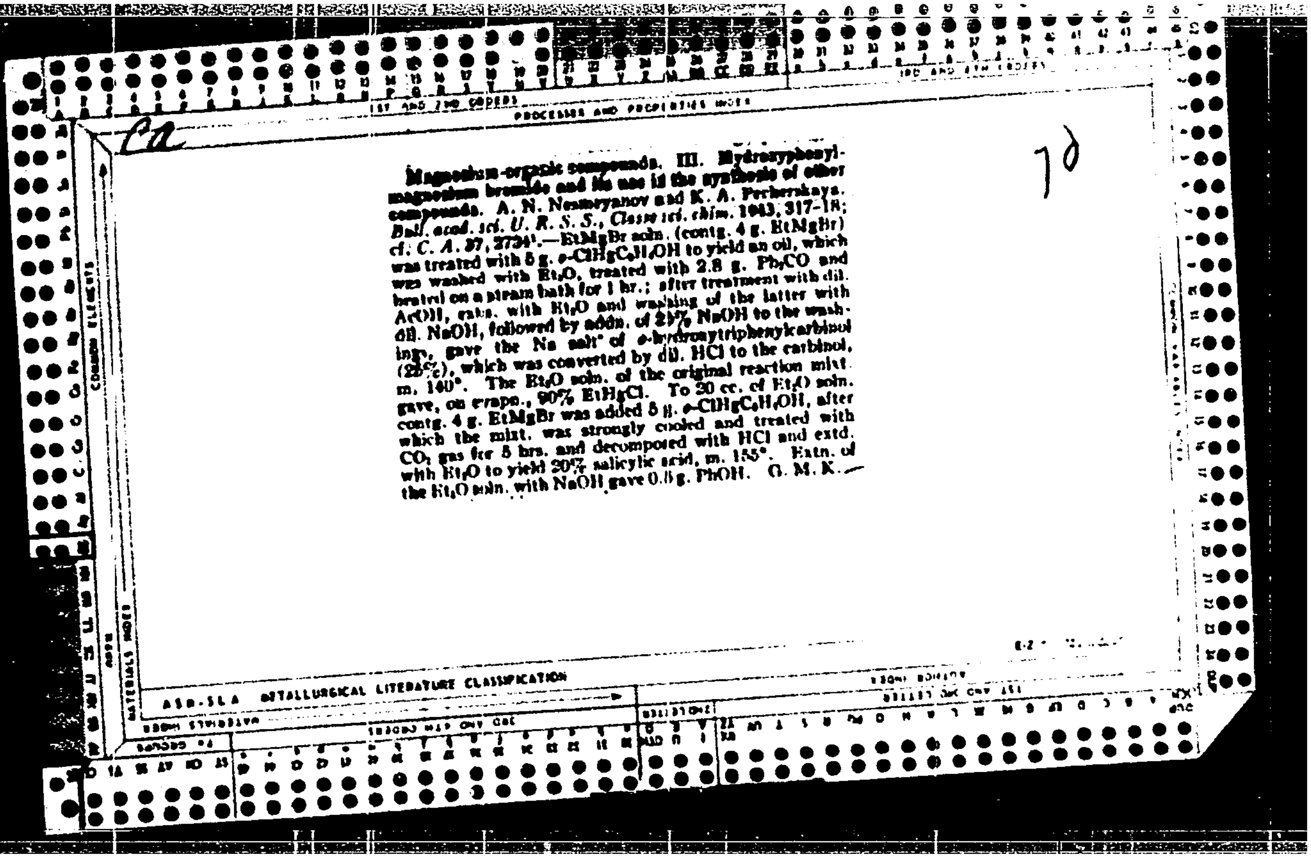
USSR. [redacted]

6

√**Influence of the structural factors on conjugation phenomena. I. Mobility of hydrogen atoms in cyclic ketones of different structures.** A. N. Nesmeyanov, D. N. Kursanov, K. A. Pecherskaya, and Z. N. Parnes. *Uchenye Zapiski Moskov. Gosudarst. Univ. im. M.V. Lomonosov.* No. 132, *Org. Khim.* 7, 66-81(1950).—See *C.A.* 44, 3917e. II. Mobility of hydrogen atoms in acetylacetone and cobalt and aluminum acetylacetonates. A. N. Nesmeyanov, D. N. Kursanov, T. A. Smolina, and Z. N. Parnes. *Ibid.* 62-5.—See *C.A.* 44, 3917*f*. IV. Reactivity of α-CH link of ketones of different configurations. A. N. Nesmeyanov, K. A. Pecherskaya, and T. P. Tolstaya. *Ibid.* 66-72; cf. *C.A.* 43, 5009a.—To 64 g. spiro[4.5]decan-6-one in 150 ml. Et_2O was slowly added 14.7 g. powd. $NaNH_2$; after heating to expel all NH_3, the soln. was treated with 58 g. MeI, dild. with H_2O, and the org. layer sepd. and washed; distn. gave 87% *7-methylspiro[4.5]decan-6-one* (II), b_{11} 101-2°, n^{20}_D 1.4850, d_{20} 0.9813. This (5 g.) in Et_2O was treated with 7.44 g. dioxane-Br in Et_2O and after 2-3 min. the colorless soln. was washed with Na_2CO_3 and distd. yielding 0.8 g. unreacted material and 10% *7-bromo deriv.* (I), b_3 100-1°, n^{20}_D 1.5210, d_{20} 1.3270. Similar reaction of 7 g. spiro[4.5]decan-6-one with 11.3 g. dioxane-Br gave 72% *7-bromospiro[4.5]decan-6-one*, m. 47-8°, which decomps. on exposure to air yielding HBr. *2,2,6-Trimethyl-1-cyclohexanone*, b. 178.5-9.5°, n^{20}_D 1.4491, with 6.6 g. dioxane-Br similarly gave 80% *6-bromo deriv.*, m. 37-8°. Camphenylone failed to react with dioxane-Br after 2 hrs. refluxing in Et_2O. I (3.30 g.) and 0.34 g. Mg in Et_2O yielded a Grignard reagent which treated with CO_2 gave 81% methylspirodecanone, b_4 85°, n^{20}_D 1.4830. Addn. of 0.78 g. $CS(NH_2)_2$ to 1.15 g. 7-bromospiro[4.5]decan-6-one followed by warming led to a vigorous reaction which was accompanied by gas evolution; treatment of the cooled [illegible]

m. 129-30° (from EtOH). II (1 g.) shaken with 1.47 g. dioxane-SO_3 in $(CH_2Cl)_2$ and left overnight, then treated with aq. $BaCO_3$, boiled to expel the org. solvent, filtered and evapd. gave 88% *Ba 1-sulfonate dihydrate*, sol. in H_2O and warm PhMe. Similarly was obtained 90% *2,2,6-trimethyl-1-cyclohexanonesulfonic acid*, isolated as *Ba salt, dihydrate*, sol. in H_2O and warm PhMe. Camphenylone failed to react with dioxane-SO_3. II (2 g.) in 1 ml. concd. HCl was treated with ice cooling with a slow stream of MeONO over 6 hrs.; a green color developed along with sepn. of 0.3 g. colorless *7-nitroso-II*, m. 111-12° (from $CHCl_3$-petr. ether). Similar reaction of *2,2,6-trimethyl-1-cyclohexanone* run at 15-7° gave 35% *6-nitroso deriv.*, decomp. 113-13.5°. Camphenylone failed to react with MeONO. The lack of reactivity of this substance is ascribed to impossibility of conjugation between the CO and the adjacent CH link.

G. M. Kosolapoff


Ca
7d
1ST AND 2ND ORDERS
PROCESSES AND PROPERTIES INDEX
3RD AND 4TH ORDERS
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

Magnesium-organic compounds. III. Hydroxyphenylmagnesium bromide and its use in the synthesis of other compounds. A. N. Nesmeyanov and K. A. Pecherskaya. *Bull. acad. sci. U. R. S. S., Classe sci. chim.* 1943, 317-18;
cf. *C. A.* 37, 2734¹.—EtMgBr soln. (contg. 4 g. EtMgBr)
was treated with 5 g. o-ClHgC$_6$H$_4$OH to yield an oil, which
was washed with Et$_2$O, treated with 2.8 g. Ph$_2$CO and
heated on a steam bath for 1 hr.; after treatment with dil.
AcOH, extn. with Et$_2$O and washing of the latter with
dil. NaOH, followed by addn. of 25% NaOH to the wash-
ings, gave the Na salt of o-hydroxytriphenylcarbinol
(25%), which was converted by dil. HCl to the carbinol,
m. 140°. The Et$_2$O soln. of the original reaction mixt.
gave, on evapn., 90% EtHgCl. To 20 cc. of Et$_2$O soln.
contg. 4 g. EtMgBr was added 5 g. o-ClHgC$_6$H$_4$OH, after
which the mixt. was strongly cooled and treated with
CO$_2$ gas for 5 hrs. and decomposed with HCl and extd.
with Et$_2$O to yield 20% salicylic acid, m. 155°. Extn. of
the Et$_2$O soln. with NaOH gave 0.5 g. PhOH. G. M. K.

PROCESSES AND PROPERTIES INDEX

CA

Potassium fluoride as an analog of alkali in reactions of organic compounds. Decarboxylation and decarbonylation. A. N. Nesmeyanov, K. A. Pecherskaya, and G. Ya. Uretskaya. *Bull. acad. sci. U.R.S.S., Classe sci. chim.* 1948, 240-5.—CCl_3CO_2H (15 g.), 5 g. dry powd. KF, and 50 ml. $PhNO_2$ were heated to 130°, when gas evolution and formation of $CHCl_3$ took place; the distn. was continued until all volatile matter was removed, giving 70% $CHCl_3$. Heating 3 g. p-$O_2NC_6H_4CH_2CO_2H$ and 1 g. KF to 130-50° 0.5 hr., followed by diln. with 10 ml. H_2O and extn. with Et_2O, gave 0.6 g. p-$MeC_6H_4NO_2$, m. 56°. $PhCH_2CO_2H$ (10 g.), passed in 20-30 min. over pieces of KF in a tube heated to 325° in a N atm., gave 5.2 g. PhMe (80%). Similarly, 15 g. anthranilic acid gave 7.2 g. $PhNH_2$. Heating 20 g. adipic acid and 10 g. KF 3 hrs. to 250-60°, with distn. of the volatile matter, gave 65% cyclopentanone, b_{760} 128-30°; similarly 18 g. pimelic acid and 7 g. KF gave cyclohexanone, b_{760} 154-6° (no yield given). Chloral (30 g.), 14 g. KF, and 50 ml. abs. EtOH heated with slow distn. (a spontaneous reaction occurs at the outset) gave 7 g. HCO_2Et and 23.5 g. $CHCl_3$. $ClCH_2CH_2CO_2H$ (20 g.) and 12 g. KF heated to 160° gave 9 g. acrylic acid, b. 139-41°. Thus, F ion has well-expressed properties of a base in reactions with org. compds. Speculations about the mechanism are presented.

G. M. Kosolapoff

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

L 00825-67 EWT(1)/EWP(e)/EWT(m) IJP(c) GG/WH/WW/GD

ACC NR: AT6015146 SOURCE CODE: UR/0000/66/000/000/0320/0321

53

AUTHOR: Kaplun, V. A.; Naboykin, Yu. V.; Pereverzev, Yu. A.; Pechiy, K. T.

B+1

ORG: none

16 16

TITLE: Absorption of light by excited uranium glass

21

SOURCE: Respublikanskiy seminar po kvantovoy elektronike. Kvantovaya elektronika (Quantum electronics); trudy seminara. Kiev, Naukova dumka, 1966, 320-321

TOPIC TAGS: light absorption, uranium glass, excited state

ABSTRACT: Wide absorption bands within the visible spectrum range were detected in some uranium-activated glasses by an impulse photometer which permitted photographing the spectra at various stages of relaxation. The absorption had a relaxation time about 1 msec and was, apparently, due to the population of the same level which produced luminescence. Spectral curves of normal absorption, excited absorption, and emission (4000--6500 Å) are shown. The last two curves partially overlap. Addition of titanium oxide or lead oxide to the glass stopped the excited-state absorption. Orig. art. has: 1 figure.

SUB CODE: 20 / SUB DATE: 12Feb66 / ORIG REF: 001 / OTH REF: 002

Cord 1/1 fv

MAZINA, G.R.; PECHKOVSKAYA, K.A.; CHERNAYA, V.V.

Electron microscope study of latex gel structures. Koll.zhur. 26 no.1:72-75 Ja-F '64. (MIRA 17:4)

1. Nauchno-issledovatel'skiy institut shinnoy promyshlennosti i Nauchno-issledovatel'skiy institut rezinovykh i lateksnykh izdeliy, Moskva.

PECHERSKAYA, K.A.; BELYAKOVA E I

Reactivity of Δ-3 and Δ [illegible] p-menthenes to maleic anhydride and azodicarboxylic ester in comparison with their capacity to autoxidation. Zhidkofaz.okis.nepr.org.soed. no.1:145-150 '61. (MIRA 15:2)

(Menthene)
(Maleic anhydride)
(Oxidation)
(Formic acid)

PECHERSKAYA, K.A.; YERMOLAYEVA, Ye.G.

Preparation of 1,2,3-trimethyl-2-cyclohexene hydroperoxide. Zhidkofaz.okis.nepr.org.soed. no.1:119-122 '61. (MIRA 15:2)
(Cyclohexene)
(Hydroperoxides)

S/580/61/000/000/012/016
A057/A126

11.2140

AUTHORS: Pecherskaya, K.A., Yermolayeva, Ye.G.

TITLE: Preparation of hydroperoxide 1,1,2-trimethyl-cyclohexene-2

SOURCE: Yerofeyev, B.V. and I.G. Tishchenko, eds. Zhidkofaznoye okisleniye nepredel'nykh organicheskikh soyedineniy, Minsk, 1961, 119 - 122

TEXT: The effect of stearic hindrances on the autoxidation capacity of cyclenes is investigated in the present paper on the example of the methylation of the cyclohexene ring. Thus, the increasing number of alkyl substitutes should increase the stearic hindrance to a degree, where the molecule of the substituted cyclene can no longer be oxidized. The oxidation was carried out with 1,1,2-trimethylcyclohexene-2 by molecular oxygen in the presence of manganese stearate at 60°C, in a device described in an earlier paper. The cyclohexene used can be prepared in two different ways namely from 2-methylcyclohexanon, or from cyclopentanton. The product of the autoxidation was distilled in a vacuum and a light-yellow liquid of the following characteristics was separated: boiling point 53°C/0.062 mm, n_D^{20} 1.4853, d_4^{20} 0.9750 and herewith was separated for the first

X

Card 1/2

Preparation of hydroperoxide.....

S/580/61/000/000/012/016
A057/A126

time the hydroperoxide of 1,1,2-trimethylcyclohexene-2. It was proved that an introduction of three methyl groups, in position 1 and 2 of the cyclohexene molecule, does not prevent the autoxidation in the α-methylene group in position 4. There is 1 table.

X

Card 2/2

3-337
S/580/61/000/000/015/016
A057/A126

√ 3300

AUTHORS: Pecherskaya, K.A.; Belyakova, R.I.

TITLE: Reactivity of Δ-3- and Δ-2-p-menthenes with maleic anhydride and azodicarboxylic ester in relation to their autoxidation capacity

SOURCE: Yerofeyev, B.V. and Tishchenko, I.G., eds. Zhidkofaznoye okisleniye nepredel'nykh organicheskikh soyedineniy, Minsk, 1961, 145 - 150

TEXT: Substitutional addition in the allyl position was effected by preparing new adducts of maleic anhydride and the azodicarboxylic ethyl ester with the σ-π-conjugated systems of Δ-3- and Δ-2-menthenes. These experiments were of interest in connection to prior studies on autoxidation of the last mentioned systems with molecular oxygen, and for comparison with similar rigid allyl systems (bornylene, camphene, fenchene), or systems without the σ-π-conjugation. Structural formulae are presented for the synthesized adducts, and the following procedures were applied: 0.12 mole Δ-2-p-menthene, respectively, 0.07 mole Δ-2-p-menthene were heated with 0.12, respectively, 0.07 mole maleic acid anhydride for 8 h at 170 - 180°C, respectively, 150 - 160°C and oily yellowish liquids with the following characteristics were obtained: boiling point 158 - 164°C/0.09 mm,

X

Card 1/2

Reactivity of Δ-3- and Δ-2-p-menthenes ....

S/580/61/000/000/015/016
A057/A126

n_D^{20} = 1,4950, d_4^{20} = 1.0873, or 178 - 180°C/0.25 mm, n_D^{20} = 1.4928, d_4^{20} = 1.1055, respectively. The adducts with azodicarboxylic ethyl ester were prepared without heating by having stand at room temperature for 48 h a mixture of 0.07 mole Δ-3-p-menthene, respectively, 0.02 mole Δ-2-p-menthene and 0.07 mole, respectively, 0.02 mole azodicarboxylic ethyl ester and boiling the fraction at 157 - 160°C/0.06 mm n_D^{20} 1.4746, d_4^{20} 1.055 with 30% yield, respectively, 132°C/0.14 mm, n_D^{20} 1.4750, d_4^{20} 1.0458 separated. No adducts could be obtained with bornylene, and camphene under same conditions. Thus an analogy was observed between observations made with molecular oxygen and maleic anhydride or azodicarboxylic ester, respectively, and reactions of substitutional addition to alkenes with different configuration.

Card 2/2

AUTHORS: Nesmeyanov, A. N., Member, Academy of Sciences, USSR, Pecherskaya, K. A., Akhramovich, A. N., Minakova, L. M. SOV/20-121-4-24/54

TITLE: Stereochemistry of σ,π- Conjugation (Stereokhimiya σ,π-**sopryazheniya**) Autooxilation of Rigid Allyl Systems (Avtookisleniye zhestkikh allil'nykh sistem)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 121, Nr 4, pp. 660 - 663 (USSR)

ABSTRACT: In earlier papers the authors proved (Ref 1) that in rigid (zhestkiy) bicyclic structures C — H and C — Hg-bindings on the top of the bridge of such structures, in an α-position to the carbonyl, are not activated by the carbonyl. Neither is under acid action the mercury of α-chloromercury camphenylone and of mercury-bis-α-camphenylone is substituted nor does an exchange for Hg^{203} and $HgCl_2$ take place. In camphenylone the α-hydrogen atom is neither treated with nitrous acid nor sulfonated nor brominated. The σ,π-conjugation of the system A-C-C=O is usually eliminated when the σ-axis of binding is at right angle to the π-surface.

Card 1/4

Stereochemistry of σ,π-Conjugation. Autooxidation of Rigid Allyl Systems SOV/20-121-4-24/54

The aim of this paper is it to clarify if there are similar conditions for the elimination of H-C-C=C-conjugation as were proved by the authors for H-C-C=O-conjugation. For this purpose they investigated such terpene hydrocarbons with respect to their capacity of being oxidizable. In terpene hydrocarbons (thanks to a methylene bridge) the C — H-binding in α-position to the double binding seems to be spatially attached to the latter, namely bornylene (I), camphene (II) and δ—fenchene. Referring to the above mentioned these hydrocarbons are compounds with a rigid structure. It could be proved that these 3 hydrocarbons do not absorb any oxygen after they are kept many hours at temperatures of 40, 60 and 80° in presence of such active initiators as cobalt and manganese stearates. After oxidation they were recovered from the solution in unchanged state. Under such conditions non-rigid allyl systems are easily oxidized by molecular oxygen be it in presence or absence of an initiator. This fact was experimentally proved in the case of related compounds with a non-rigid structure.

Card 2/4

Thus it could be proved by means of experiments that in the

Stereochemistry of σ,π-Conjugation. Autooxidation of Rigid Allyl Systems SOV/20-121-4-24/54

case of the homolytical σ-,π-conjugation the influence of the same spatial factors occurs as in heterolytical conjugations. There are 1 table and 15 references, 7 of which are Soviet.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR (Institute of Elemental-Organic Compounds, AS USSR) Belorusskiy gosudarstvennyy universitet im.V.I.Lenina (Belorussian State University imeni V.I.Lenin)

SUBMITTED: April 21, 1958

Card 3/4

PECHERSKAYA, K.A.

USSR/Organic Chemistry - Theoretical and General Questions on Organic Chemistry, E-1

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 61416

Author: Pecherskaya, K. A., Krasnik, K. A.

Institution: None

Title: On Asymmetrical Chain Synthesis

Original Periodical: Uch. zap. Belorus. un-ta, No 20, 1954, 173-180

Abstract: After shaking (+) p-menthane-3, $[\alpha]_D$ +112° with oxygen at 60° in presence Mn-salts of (-)-mandelic acid (I), d,l-mandelic acid (II) and stearic acid (III) the authors isolated by vacuum distillation a substance (IV) the constants of which coincide with menthane-3-hydroperoxide-2 (Hock, H., Ber., 1942, 75, 300). $[\alpha]_D$ of benzene solutions of IV obtained on carrying out the process in presence of I, II or III, was respectively 10.6, 35.8, 33.8°. These differences in $[\alpha]_D$ the authors explain by a change in the ratio of the formed diastereomers of IV under the influence of I.

Card 1/2

PECHERSKAYA, S. A.

33561. Sluchay Obshirnogo Povrezhdeniya Kisti Tsirkulyarnoy Piloy. Khirurgiya, 1949, No. 10, c. 55-56

SO: Letopis'nykh Statey, Vol. 45, Moskva, 1949

1. PECHERSKAYA, S. L.

2. USSR (600)

4. Wheat

7. Work practice of a collective farm experimenter in improving breed characteristics of seeds. Sel. i sem. 19 no. 12, 1952

9. Monthly List of Russian Accessions, Library of Congress, March 1953, Unclassified.

Pecherskaya, Yu. I.

7230

Possibility of chain mechanism in heterogeneous catalysis. V. V. Voevodskii, G. K. Lavrovskaya, and Yu. I. Pecherskaya. [illegible] S.S.R., [illegible] Measurement of the kinetics of hydrogenation of C_2H_4 on [illegible] on Al_2O_3 at 405° showed the dependence of the initial reaction rate and of the degree of its retardation on exptl. factors of temp., pressure, and compn. of the reaction mixt. The results can be explained if a chain mechanism based on formation of active surface radicals of V . . . H type is assumed; the possibility of existence of such radicals can be deduced from the rate of recombination of H on this catalyst.

G. M. Kosolapoff

3

MAZANSKIY, V.B.; PECHERSKAYA, Yu.I.; VOYEVODSKIY, V.V.

Use of the electronic paramagnetic resonance method in the study of the crystalline properties of a chromic oxide catalyst. Khim. i kat. 1 no.2:257-259 Jl-Ag '60. (MIRA 13:8)

1. Institut khimicheskoy fiziki AN SSSR.
(Paramagnetic resonance and relaxation)
(Chromium oxide)

PECHERSKAYA, Yu.I.; PEVTSOV, G.A.

Spectral determination of calcium, silicon, barium, potassium, and rubidium impurities in high purity sodium iodide. Trudy IREA no.22:56-58 '58. (MIRA 14:6)

(Soduim iodide)
(Metals—Analysis)

RODE, T.V.; KAZANSKIY, V.B.; PECHERSKAYA, Yu.I. (Moscow)

Electron magnetic resonance study of chromium oxides. Zhur.fiz.-khim. 35 no.10:2370-2375 O '61. (MIRA 14:11)

1. Akademiya nauk SSR, Institut obshchey i neorganicheskoy khimii imeni N.S.Kurnakova.

(Chromium oxide--Spectra)

BORESKOV, G.K.; BUKANAYEVA, F.M.; DZIS'KO, V.A.; KAZANSKIY, V.B.; PECHERSKAYA,
Yu.I.

Electron paramagnetic spectra of deposited chromium oxide catalysts used for ethylene polymerization, and the nature of their activity. Kin. i kat. 5 no.3:434-440 My-Je '64.

(MIRA 17:11)

1. Institut kataliza Sibirskogo otdeleniya AN SSSR i Institut khimicheskoy fiziki AN SSSR.

PECHERSKAYA, Yu.I.; KAZANSKIY, V.B.

Thermal decomposition of chromic anhydride on aluminum oxide as studied by electron paramagnetic resonance. Zhur. fiz. khim. 34 no. 11:2617-2618 N '60. (MIRA 14:1)

1. Akademiya nauk SSSR, Institut khimicheskoy fiziki.
(Chromium oxide)

PECHERSKAYA, Yu.I.; KAZANSKIY, V.B.

Relation between the catalytic activity of chromium oxide catalysts and the valence state of chromium. Kin. i kat. 6 no.2:357-360 Mr-Ap '65. (MIRA 18:7)

1. Institut khimicheskoy fiziki AN SSSR.

BORESKOV, G.K.; DZIS'KO, V.A.; YEMEL'YANOVA, V.M.; PECHERSKAYA, Yu.I.;
KAZANSKIY, V.B.

Catalytic activity and electron paramagnetic spectra of molybdenum oxide catalysts for the polymerization of ethylene. Dokl. AN SSSR 150 no.4:829-832 Je '63. (MIRA 16:6)

1. Institut kataliza Sibirskogo otdeleniya AN SSSR i Institut khimicheskoy fiziki AN SSSR. 2. Chlen-korrespondent AN SSSR (for Boreskov).

(Molybdenum catalysts—Spectra)
(Polymerization)

KAZANSKIY, V.B.; PECHERSKAYA, Yu.I.

Changes in electron paramagnetic resonance spectra of chromia-aluminosilicate catalysts for ethylene polymerization induced by reaction components. Kin.i kat. 4 no.2:244-251 Mr-Ap '63.
(MIRA 16:5)

1. Institut khimicheskoy fiziki AN SSSR.
(Chromium catalysts—Spectra)(Polymerization)(Aluminosilicates)

MARKEVICH, A.M.; PECHERSKAYA, Yu.I. (Moskva)

Hydrogen peroxide in the oxidation of formaldehyde. Zhur. fiz. khim. 35 no.7:1418-1424 Jl '61. (MIRA 14:7)

1. Akademiya nauk SSSR, Institut khimicheskoy fiziki.
(Formaldehyde) (Hydrogen peroxide)

S/195/61/002/003/008/009
E071/E412

AUTHORS: Kazanskiy, V.B., Pecherskaya, Yu.I.

TITLE: An investigation of aluminachrome catalysts by the method of electron paramagnetic resonance

PERIODICAL: Kinetika i kataliz, v.2, no.3, 1961, 454-461

TEXT: Since the formation of chromium of an intermediate valency in chromium catalysts may be useful in explaining the nature of their catalytic activity, the authors investigated the process of decomposition of chromic anhydride on alumina by the ЭПР (EPR) method. Specimens of catalysts were prepared by shaking γ alumina (specific surface area about 180 m^2/g) with aqueous solutions of chromic acid of various concentrations. After filtering, the alumina was ignited in a stream of air at 350°C or at 500°C for 8 hours. The reduction of the catalyst was done in a stream of dry hydrogen at 360 or 500°C for 5 hours. After which it was cooled to 30 to 50°C in nitrogen. The content of chromium in the specimens (which varied from 0.2 to 11.4%) was done by chemical analysis. The EPR spectra were taken with an EPR-2 spectrometer operating at 9400 millimegacycles (λ = 3.2 cm) with a variation of the magnetic field from 0 to 8000 oersted.

Card 1/5

An investigation of aluminachrome ... S/195/61/002/003/008/009
E071/E412

Occasionally an instrument with λ = 21.8 cm and Hp = 500 oersted was used. The intensity of the signals observed was determined by comparison with the spectrum of a monocrystal of $CuCl_2 \cdot 2H_2O$. The EPR spectra of the specimens, containing up to 9.2% of Cr and ignited in air at 350, contained only one resonance line 44 oersted wide with g-factor = 1.97. At a higher chromium content this line is observed on a background of a wide resonance absorption line. After reduction in hydrogen at 350°C the intensity of the wide line (characterizing microcrystals of reduced Cr_2O_3) increases and the intensity of the narrow line decreases but it is still present at a chromium content of from 0.4 to 2.5%. On reduction at 500°C, the narrow line disappears from the spectra of all specimens. If a so reduced catalyst is heated in air at 300°C the narrow line reappears. The influence of oxygen on the narrow EPR line was determined at room temperature and at −196°C. At room temperature with increasing oxygen pressure, the amplitude of the signal decreases and its width increases, whereupon the change is reversible. On prolonged retention of the specimens in air, an irreversible decrease in the intensity of the narrow line was observed. This
Card 2/5

S/195/61/002/003/008/009
An investigation of aluminachrome ... E071/E412

is apparently due to the oxidation of all chromium to the six-valent state. At - 196°C, a decrease in the intensity of the narrow line without an increase in its width was observed. The influence of temperature was studied within a range of -196 to 300°C. The width of the line is independent of temperature but its intensity obeys the Curie-Weiss law with the value of the Weiss constant $\Delta = 25$°K. The results obtained indicated that the phase giving the narrow line in the EPR spectra of aluminochrome catalysts is bound to the surface of the carrier and that its thickness does not exceed a few atomic layers. A comparison of the EPR spectra at various frequencies indicated that the width of the line and its g-factor remain constant, thus chromium ions, responsible for the narrow line, do not possess a fine structure, i.e. the line corresponds to Cr^{5+} ions. The above conclusion is in line with other results obtained in this work, e.g. the disappearance of the line for catalysts reduced at 500°C can be explained by the reduction of all chromium to the trivalent state. The narrow line was never observed by the authors in the EPR spectra of various chromium oxides without carriers. For chromium

Card 3/5

S/195/61/002/003/008/009
An investigation of aluminachrome ... E071/E412

catalysts in which aluminosilicates or silicagel were used as carriers, the narrow EPR line is asymmetrical. The above indicates the strong influence of the carrier. In general compounds of pentavalent chromium are unstable and the existence of Cr^{5+} ions in chromium oxide catalysts on carriers is apparently related to the stabilizing effect of the crystal lattice of the base. Acknowledgments are expressed to N.Ya.Buben for measurements. A.V.Topchiyev, V.A.Krentsel', R.Michail, P.Corlateanu and A.Ionesco are mentioned for their contributions in this field. There are 6 figures, 1 table and 17 references: 10 Soviet-bloc, 1 Russian translation from non-Soviet authors and 6 non-Soviet-bloc. The four references to English language publications read as follows:
Ref.4: R.Michail, P.Corlateanu, A.Ionesco, J.Chim.Phys., v.56, 568, 1959; Ref.5: J.Matzunaga, Bull. Chem. Soc. Japan, v.31, 745, 1958; Ref.11: D.E.O'Reilly, D.S.MacIver, Symposium on technique on study of catalysis mechanism, Boston, April 5-10, 1959; Ref.16: P.W.Anderson, P.R.Weiss, Rev. Mod. Phys., v.25, 269, 1953.

Card 4/5

Pecherskaya, Yu. I.

USSR

BALANDIN, Aleksey A. - "On the theory of contact catalysis of hydrogenation and dehydrogenation reactions" (Section I)
BORESKOV, Georgiy K., and VASILEVICH, A. A. - "Mechanism of isotope exchange of hydrogen on platinum" (Section I)
EYDUS, T. (probably Yakov T. EYDUS) - "On the role of intermediate surface forms in some heterogeneous-catalytic reactions of carbon monoxide and olefines" (Section I)
FREYDLIN, Lev Kh, and OCHCHKOV, V. I. - "Catalytic transformation of cyclohexene and copper and the multiplet theory" (Section II)
MAMEDALIYEV, Yusuf G., and GUSEYNOV, M. M. - "Chlorocarbons manufacture by chlorination of alkanes in the fluid bed of a catalyst" (Section III)
NIKOLAYEV, L. A. - "Specific aspects of the mechanism of catalysis by complex compounds" (Section II)
PECHERSKAYA, Yu. I., KAZANSKIY, V. B., and VOYEVODSKIY, V.V.- "Investigation of heterogeneous catalysts by electron spin resonance" (Section II)
PETROV, A. D. - "On the catalytic synthesis of organosilicon compounds" (Section III)
ROGINSKIY, Simon Z. - "Electronic effects in catalysis" (Section I or II)
RUBINSHTEYN, A. M. - "The structure and texture of Chromia-alumina-potassium oxide catalysts" (Section II)
SHUYKIN, N. I., and BEL'SKIY, I. F. - "Catalytic transformations in the furanic compound group" (Section III)
SOKOL'SKIY, D. V., and SUGONINA, V. F. - "Kinetic and mechanism of catalytic reduction in aromatic nitro derivatives" (Section I)
TERENIN, A. N. and ROYEV, A. - "Active sites on transition metal catalysts, revealed in the infrared spectrum of adsorbed NO." (Section II)
TOPCHIYEVA, K. V., ANTIPINA, T. V., and LEE HEN SHENG (Possibly LI Ho-seng, Moscow Textile Institute) - "The effects of structural characteristics of porous catalysts on activity and kinetic behavior of heterogeneous-catalytic reactions" (Section I)
VOL'KENSHTEYN, F. - "General ideas on the electronic theory in catalysis on semiconductors" (Section I)
YEROFEYEV, B. V., and NIKIFOROVA, N. F. - "Catalytic transformation of cyclohexene and copper and the multiplet theory" (Section II)

reports to be presented at the 2nd Intl Congress on Catalysis, Paris, France, 4-9 Jul '60.

AUTHORS: Kazanskiy, V. B., Pecherskaya, Yu. I.

S/076/60/034/02/039/044
B010/B007

TITLE: Paramagnetic Electron Resonance in Irradiated Aluminum Oxide

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol 34, Nr 2, p 477 (USSR)

ABSTRACT: At -196°C gamma aluminum oxide was irradiated with Co^{60} gamma rays in a vacuum and investigated according to the method of paramagnetic electron resonance. A complicated signal with a g-factor of about 2 was observed (Fig a), which did not change also after a prolonged storage at -196°C. Storage for some hours at room temperature led to a change in the signal, in which case the intensity of the left line ($g \approx 2$) decreased considerably, whereas the right line remained unchanged (Fig b). Here intensity decreased by about 10 times its amount. This decrease of the signal and observations made by Taylor and Kohn (Ref 1) are explained by the fact that the signal is in correlation with the centers of aluminum oxide, which are responsible for increased catalytic activity.

ASSOCIATION: Akademiya nauk SSSR Institut khimicheskoy fiziki Moskva (Academy of Sciences of the USSR, Institute of Chemical Physics, Moscow)

Card 1/2

S/076/61/035/007/003/019
B127/B208

AUTHORS: Markevich A. M., Pecherskaya Yu. I.

TITLE: Hydrogen peroxide in the oxidation of formaldehyde

PERIODICAL: Zhurnal fizicheskoy khimii, v. 35, no. 7, 1961, 1418- 1424

TEXT: The authors studied the kinetics of oxidation of formaldehyde at 330 - 420°C in the presence of H_2O_2. First, at 330 - 390°C the following reactions took place: $CH_2O + O_2 \rightarrow H_2O_2 + CO$ and $H_2O_2 \rightarrow H_2O + \frac{1}{2} O_2$. The temperature coefficients of the reaction rates were different in each case. The obversable reaction acceleration was found to be due to catalysis by hydrogen peroxide. Also the effect of H_2O_2 on the inflamation limit of an air-formaldehyde mixture was studied. The experiments showed that it is lowered by an addition of H_2O_2. All of the CO was oxidized to CO_2. Further reactions were:

$$CH_2O + O_2 \rightarrow H\dot{C}O + H\dot{O}_2 \,, \qquad (3)$$

$$H\dot{C}O + O_2 \rightarrow CO + H\dot{O}_2 \,, \qquad (4)$$

$$H\dot{O}_2 + CH_2O \rightarrow H_2O_2 + H\dot{C}O \,. \qquad (5)$$

Card 1/3

S/076/61/035/007/003/019
B127/B208

Hydrogen peroxide in the ...

Reaction (3) stimulates the other ones in an increasing manner since it leads to formation of H_2O_2. Two types of interaction of hydrogen peroxide are assumed to occur. According to the one, it would act directly upon formaldehyde, especially at low temperatures (up to 100°C) $2\ CH_2O + H_2O_2 \rightarrow (CH_2OH)_2O_2$. Furthermore, formic acid would be formed. At more than 300°C, however, the acid was not detectable. At higher temperatures the following process is assumed to take place: $CH_2O + H_2O_2 \rightarrow 2\ H_2O + CO$, which increases the oxidation rate. According to the other variant, H_2O_2 is assumed to decompose into its radicals:

$H_2O_2 \rightarrow 2\dot{O}H$ (6) which lead to the following reactions:

$\dot{O}H + CH_2O \rightarrow H_2O + H\dot{C}O$, (7)

$\dot{O}H + H_2O_2 \rightarrow H_2O + H\dot{O}_2$. (8)

The total reaction rate may be expressed by $d\ CH_2O/dt = w_3\nu + w_6\nu$. w_3, w_6 are the rates of the reactions (3) and (6), ν denotes the length of the chain. At temperatures from 460 - 500°C the reaction rate may increase up

Card 2/3

S/076/61/035/007/003/019
Hydrogen peroxide in the ... B127/B208

to explosion, when hydrogen peroxide is introduced into the reaction, even in the case of low formaldehyde concentrations. The bond energies obtained were: H-CHO 79 kcal, H-OO- 47 kcal, HO-OH- 48 kcal. w_3 and w_6 were determined to be

$$w_3 = 10^{-10} [CH_2O] [O_2] e^{-32000/RT}, \quad w_6 = 10^{13} [H_2O_2] e^{-48000/RT}.$$

The surface condition of the reaction vessel seems to have a certain importance, as the radical $H\dot{O}_2$ probably reacts with it. V. V. Voyevodskiy and A. B. Nalbandyan have found that $K_2B_4O_7$ coating of the surface stimulates the decomposition of $H\dot{O}_2$. N. N. Semenov is mentioned. There are 5 figures and 9 references: 8 Soviet and 1 non-Soviet. The reference to English-language publications reads as follows: G. M. Eisenberg, Ind. a. Engin. Chem. Analytical edition, 15, 327, 1943.

ASSOCIATION: Akademiya nauk SSSR Institut khimicheskoy fiziki (Academy of Sciences USSR, Physicochemical Institute)

SUBMITTED: March 13, 1959
Card 3/3

PECHERSKAYA, Yu.I.; KAZANSKIY, V.B.

Inhibition mechanism of ethylene polymerization on chromium oxide catalysts. Dokl. AN SSSR 162 no.5:1101-1104 Je '65. (MIRA 18:7)

1. Institut khimicheskoy fiziki AN SSSR. Submitted December 3, 1964.

PECHERSKI, ZYGMUNT

GEOGRAPHY & GEOLOGY

PECHERSKI, ZYGMUNT. Konin, Slupca, Kolo. Warszawa, Sport i Turystyka, 1958.
125 p. (Konin, Slupca, Kolo. map, bibl., footnotes, index) MiDW

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. 5,
May 1959, Unclass.

PECHERSKIKH, N.

According to our suggestions. NTO 4 no.12:18-19 D '62.
(MIRA 16:1)

1. Predsedatel' obshchestvennogo byuro ekonomicheskogo analiza Kirovgradskogo medeplavil'nogo kombinata.
(Kirovograd—Copper industry)

PECHERSKIY, B. F.

"Penicillin Treatment for Gonorrheal Complications,"

Vest. Veneral. i Dermatol., No. 1, 1949. Docent,

Skin and Venereal Diseases Clinic MONIKI, -c1949-.

PECHERSKIY, P. F.

25989. Pecherskiy, P. F. Parafinoterapiya gonorroynykh epididimitov. Zdravookhraneniye Kazakhstana, 1949, No 4, s. 17-21

SO: Knizhnaya Letopis', Vol. 1, 1955

PECHERSKIY, I. [illegible].

32811. Sovremennoye lecheniye muzhskoy gonorrei. Fel'dsher i akusherka. 1949, No. 10, s. 3 5

SO: Letopis' Zhurnal'nykh Statey, Vol. 44, Moskva, 1949

PECHERSKIY, B.F., dotsent

Epididymitis in the course of trichomonal urethritis. Vest. ven. i derm. no.6:38-41 N-D '54. (MLRA 8:2)

1. Iz kliniki kozhnykh i venericheskikh bolezney (dir.-prof. V.Ya. Arutyunov) Moskovskogo oblastnogo nauchno-issledovatel'skogo klinicheskogo instituta imeni M.F.Vladimirskogo (dir.-kand. med. nauk P.M.Leonenko)

(EPIDIDYMITIS, complications
urethritis, trichomonal)
(TRICHOMONIASIS
urethritis with epididymitis)
(URETHRITIS
trichomonal, with epididymitis)

PECHERSKIY, B.F., dotsent; **KHUBLAROV, E.M.**; **LUR'YE, A.S.**

Treatment of gonorrheal urethritis with levomycetin in men. Urologiia, 23 no.1:45-49 Ja-F '58. (MIRA 11:3)

1. Iz kliniki kozhnykh i venericheskikh bolezney (dir.-prof. V.Ya. Arutyunov) Moskovskogo oblastnogo nauchno-issledovatel'skogo instituta imeni M.F.Vladimirskogo. 2. Podol'skiy venerologicheskiy dispanser (for Pecherskiy,Khublarov).

(CHLORAMPHENICOL, ther. use
gonorrheal urethritis in men)
(URETHRITIS, ther.
chloramphenicol in gonorrheal urethritis in men)
(GONORRHEA, ther.
same)

BEREZOVKSIY, B.A., kand.med.nauk; PECHERSKIY, D.G.

Result of the use of aminazine in the treatment of patients with pulmonary tuberculosis. Klin.med. 38 no.10:39-41 O '60. (MIRA 13:11)

1. Iz kafedry fakul'tetskoy terapii (zav. - prof. B.S. Shklyar) Vinnitskogo meditsinskogo instituta (dir. - dotsent S.N. Korkhov).
(TUBERCULOSIS) (CHLORPROMAZINE)

PECHERSKIY, D.M.

Connection of the anisotropy of residual magnetization with conditions governing the formation of rocks. Geol. i geofiz. no.8:66-76 '65. (MIRA 18:9)

1. Severo-Vostochnyy kompleksnyy nauchno-issledovatel'skiy institut Sibirskogo otdeleniya AN SSSR, Magadan.

PECHERSKIY, D.M.; [illegible], V.N.; [illegible]

Results of the paleomagnetic study of a cross section [illegible] volcanic formations in the central part of the central range of Kamchatka. Izv. AN SSSR. Ser. geol. 3[illegible] no. [illegible] [illegible]-9[illegible] [illegible].

1. Severo-Vostochnyy kompleksnyy nauchno-issledovatel'skiy institut Sibirskogo otdeleniya AN SSSR i Severo-[illegible] geologicheskoye upravleniye, Magadan.

NAYBORODIN, V.I.; PECHERSKIY, D.M.

Magnetic properties of some igneous rocks metamorphosed by the granitoids of the Magadan batolith. Sov. geol. 8 no.4:140-147 Ap '65. (MIRA 18:7)

1. Severo-Vostochnyy kompleksnyy nauchno-issledovatel'skiy institut Sibirskogo otdeleniya AN SSSR.

S/169/62/000/010/013/071
D228/D307

AUTHOR: Pecherskiy, D.M.

TITLE: One of the causes of low remanent igneous rock magnetization

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 10, 1962, 13-14, abstract 10A86 (Geologiya i geofizika, no. 1, 1962, 100-117 (summary in Eng.))

TEXT: The causes of deviations of the parameter Q in a series of rocks of differing genesis from the statistical pattern for the decrease of Q with the age of rocks are considered on the grounds of statistical magnetic rock property analysis, thermomagnetic analysis, and other research data. It is shown that in granitoids the low crystallization temperature of the granitic magma, in the last stages of which magnetite and ilmenite crystallize, is the main cause of the low Q value.
/ Abstracter's note: Complete translation /

Card 1/1

PECHERSKIY, D.M.

Magnetic anisotropy of layered rocks. Izv.AN SSSR.Ser.geofiz. no.10:1490-1494 O '60. (MIRA 13:9)

1. Seymchanskoye geologorazvedochnoye upravleniye.
(Rocks--Magnetic properties)

PECHERSKIY, D.M.

Statistical analysis of the causes of the variations of the magnetization of granitoids in the Verkhoyansk-Chukchi fold area and the Okhotsk-Chukchi volcanic belt. Izv. AN SSSR. Ser. geol. 28 no.11:51-65 N'63. (MIRA 17:2)

1. Severo-Vostochnyy kompleksnyy nauchno-issledovatel'skiy institut Sibirskogo otdeleniya AN SSSR.

PECHERSKIY, D.M.

One of the causes of the low residual magnetization of effusive rocks. Geol.i geofiz. no.1:100-117 '62. (MIRA 15:4)

1. Severo-Vostochnyy kompleksnyy nauchno-issledovatel'skiy institut, Magadan.
(Rocks--Magnetic properties)

PECHERSKIY, D.M.

Magnetic properties of granitoids in the northeastern part of the U.S.S.R. Trudy SVKNII no.9:6-157 '64. (MIRA 18:9)

MILOV, A.P.; PECHERSKIY, D.M.; IVANOV, V.S.

Geological characteristics and magnetic properties of the Velitkenayskiy granitoid massif. Trudy SVKNII no.9 170-180 '64. (MIRA 18:9)

SPERANSKAYA, I.M.; PECHERSKIY, D.M.

Conditions governing the formation of various types of ignimbrites. Trudy SVKNII no.9:180-191 '64. (MIRA 18:9)

PECHERSKIY, F., podpolkovnik.

Our experience training ferry boat pile driver crews. Voen.-inzh. zhur. 101 no.3:394 Mr '57. (MIRA 10:3)
(Military bridges)

TOICHKIN, Vitaliy Georgiyevich; PECHERSKIY, Mikhail Iosifovich;
DOBRYAKOV, G.I., red.; LEVINA, L.G., tekhn. red.

[Aleksandr Teploukhov, a tractorist]Traktorist Aleksandr Teploukhov. Moskva, Izd-vo M-va sel'khoz. RSFSR, 1961. 18 p.
(MIRA 15:10)

(Agricultural workers)

KAPLUN, G.F.; PECHERSKIY, M.P.; KHOROVICH, B.G.

Noncontact amplitude device for automatic recording of transportation units. Priborostroenie no.3:26 Mr '63.
(MIRA 16:6)

(Recording instruments)

KAPLUN, G.F., inzh.; PECHERSKIY, M.P., inzh.; KHOROVICH, B.G., inzh.

Using automatic and remote control in controlling traffic.
Gor. khoz. Mosk. 33 no.5:33-36 My '59.
(MIRA 12:7)

1.Proyektnaya kontora "Mosgortransproyekt."
(Moscow--Traffic signs and signals) (Automatic control)
(Remote control)

KAPLUN, G.F., inzh.; PECHERSKIY, M.P., inzh.; KHOROVICH, B.G., inzh.

Cybernetic traffic light. Za bezop.dvizh. 3 no.7:1-2 Jl '60.
(MIRA 13:8)

1. "Mosgortransproyekt."
(Traffic signs and signals)

PECHERSKIY, N.

USSR
Kurgan-Tyube
On-Kurgan-Tyubinskiy Oilseed Processing Plant.
N: Tadshik Communist 1 August 1947: Stalinabad

SOURCE: Abstracted in USAF "Treasure Island" Report No. 31286, on file in Library of Congress, Air Information Division

PECHERSKIY, N.

USSR
ON: Irrigation canal Dzhilikul'-Kafyr

SOURCE: N: Kommunist Tadzhikistana (Tadzhik Communist) 13 Feb.'48
Stalinabad, Tadzhinkskaya SSR
Abstracted in USAF "Treasure Island", on file in
Library of Congress, Air Information Division, Report No. 28561

PECHERSKIY, V.I., leytenant meditsinskoy sluzhby

"Saddle" transport splint for immobilizing the pelvis bones. Voen.-med.zhur. no.2:86-87 F '60. (MIRA 13:5)
(SPLINTS)
(PELVIC BONES fract. & disloc.)

PECHERSKIY, V.P.

Find of micaceous diamond-bearing kimberlites in the foothills of the Eastern Sayan Mountains. Sov. geol. 8 no.4:131-133 Ap '65. (MIRA 18:7)

1. Irkutskoye geologicheskoye upravleniye, Kompleksnaya tematicheskaya ekspeditsiya.